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FAX

To:	Jon Christensen Intermountain Power Service Corp.	From:	Steve Klein Project Manager
Fax:	435-864-6670	Tel:	412-967-7168
cc:		Fax:	412-967-7668
		Email:	Steve.klein@tde.alstom.com
Your Ref:	Contract No. 04-45605	Date:	18-Nov-03
Our Ref:	GD70107	No. of Pgs.:	1 of 23
Project:	Unit #1 ID Fans Adjustable Speed Drive	Comm. No:	AP-IP-L-006
Subject:	Comments on P.O. Specification		

Jon,

Attached is our letter advising comments on the revised Specification that accompanied your purchase order. I am not planning to mail the original letter unless you advise the need to have it.

Best Regards,

Steve Klein

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Pittsburgh, PA 15238-2880 USA
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To: Mr. George W. Cross
President and Chief Operating Officer
Intermountain Power Service Corporation
850 West Brush Wellman Road
Delta, UT 84624-9546

Attention: Jon Christensen,
Contract Administrator

cc:

From: Stephen P. Klein
Project Manager

Tel: 412 967-7168
Fax: 412 967-7668
Email: Steve.klein@tde.alstom.com

Your Ref: Contract No.: 04-45605
Our Ref: GD70107

Project: Unit No. 1 ID Fans Adjustable Speed Drive

Date: November 18, 2003
No. of Pgs.: 1 of 2
Comm. No: AP-IP-L-006

Subject: Comments on P.O. Specification

Dear Jon:

Alstom is in receipt of IPSC's PO no. 04-45606 and we have completed review of the attached, revised Specification 45606 with the following comments.

1. Division F3, Section 22, Wiring: In the kick-off meeting of October 15, 2003, Alstom commented that "**Internal feedback CTs are not being run to terminal blocks.**" There were no changes made to paragraph 8 regarding these comments. Alstom requests that the first 3 sentences of paragraph 8 be removed and replaced with the statement in bold above.

2. Division F3, Section 24, Terminal Blocks:
   a. Alstom would like to discuss the interpretation of the requirement for "twenty percent spare terminals" at the next teleconference call on 11/20/03.
   b. In kick-off meeting of October 15, 2003, Alstom advised that stud-type terminal blocks are not our standard, but that we would provide them at an additional cost. This cost will be advised as soon as procurement of the items is completed.

3. Division F7, Section 2.e., VFD System Efficiency: The system efficiency was revised from 96% in the original specification to 99% in the current version. Even though Alstom stated our system would attain 99% efficiency, we did not agree to have penalties kick in at the 99% level. Please modify this section to read 96% minimum efficiency, to which Alstom's system was quoted.

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4. Division F7, Section 2.f., System Input Power Factor: Alstom will agree to the power factor penalty clause provided that the following measurement requirements are applied.
   a. Total 12-pulse power factor is measured – this will require that the power drawn by two transformers, and only two transformers be measured together (for one drive).
   b. The supply voltage be at its nominal value for the duration of the testing.
   c. The drive be fully adjusted for optimization.
   d. Adjustments be allowed to correct for any deviation.
   e. A margin of error of +/- 2% be permitted on readings.
   f. Readings be made by visual comparison of phase current of voltage waveforms to obtain the apparent power factor as defined in the bid documents.
   g. To conduct the test, it must be permitted to increase the motor voltage by at least 5% as described in the bid.
   h. It must, also, be possible to tap down the supply transformer(s) in order to achieve firing angle optimization as described in the bid.
   i. The evaluation is made at fan speed of 800rpm.
   j. The target power factor is 0.88 at 800rpm (penalty assessment point).

5. Division F7, Section 8, Programming and Communications: On 10/24/03, Alstom submitted a rewritten version of this section, as agreed at the 10/15/03 kick-off meeting. The rewritten version specified all text additions in red print and all text deletions in blue print. All text additions were made in the revised specification, but none of the deletions appear.

6. Division 7, Pages F7-21 through F7-25, Existing Hardware Control Signal List: It was Alstom's expectation that this signal list would be modified in accordance with the I/O schedule submitted by John Bradley on 10/21/03. As an alternative to this modification, Alstom will be submitting new cabling drawings that can be used to replace this section of the specification.

It is our desire to discuss these comments during our next teleconference call on Thursday 10/20/03.

Please let me know if you have any questions or desire further clarification on any items.

Sincerely,

Stephen P. Klein

F7.1

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